

## Message Text

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ACTION OES-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 ACDA-12 CIAE-00  
INR-07 IO-13 L-03 NSAE-00 NSC-05 EB-08 NRC-05  
DODE-00 SS-15 SP-02 /091 W  
-----055860 190925Z /16

P 181740Z NOV 77

FM AMEMBASSY VIENNA  
TO SECSTATE WASHDC PRIORITY 4145  
INFO USDOE HQ WASHDC PRIORITY  
USDEO HQ GERMANTOWN PRIORITY  
AMEMBASSY BRUSSELS PRIORITY

C O N F I D E N T I A L SECTION 1 OF 3 VIENNA 10069

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EO 11652: GDS  
TAGS: IAEA/EURATOM SAFEGUARDS-LWR SITUATION

A) BRUSSELS 14989; B) VIENNA 9572; C) STATE 262609;  
D) VIENNA 9573

1. MISSION HAS OBTAINED COPY OF LETTER SENT NOVEMBER 15  
1977, FROM IAEA ASSISTANT DIRECTOR GENERAL FOR EXTERNAL  
RELATIONS, DAVID FISCHER, TO LEONARD WILLIAMS, DIRECTOR  
GENERAL OF ENERGY DIRECTORATE (XVII) OF THE COMMISSION OF  
THE EUROPEAN COMMUNITIES. WE UNDERSTAND IAEA HAS GIVEN  
COPIES TO EC MEMBER STATE REPS IN VIENNA ALSO. LETTER  
SETS FORTH IAEA PROPOSAL TO EURATOM ON A SAFEGUARDS APPROACH  
TO LIGHT WATER REACTORS (LWR).

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2. ACCORDING TO IAEA'S EURATOM SECTION HEAD,  
THORSTENSEN, BOTH FISCHER AND HE BELIEVE IAEA'S  
PROPOSAL GOES BEYOND WHAT EURATOM WILLING TO ACCEPT.  
THIS VIEW ALSO SHARED BY GEORGIO LONGO OF WILLIAMS'  
OFFICE WHO CAME TO VIENNA TWO WEEKS AGO TO SET UP A  
EURATOM OFFICE (I.E., EC OFFICE DEALING WITH IAEA

MATTERS). LONGO PARTICIPATED IN US/EURATOM DISCUSSIONS IN LUXEMBOURG OCTOBER 25 AND 26, REF A.)

3. KEY ISSUE IS EXTENT TO WHICH IAEA WOULD ACCOMPANY EURATOM INSPECTORS ON THE THREE AND NINE-MONTH VISIT TO EACH LWR TO REMOVE THE "SLAVE" COMPONENT/CASSETTE OF THE SURVILLANCE EQUIPMENT. U.S. POSITION, DEVELOPED IN LUXEMBOURG (REF A, PARA 6; REF B, PARA 6C, REC C, PARA 1), WAS FOR IAEA ACCOMPANYING EURATOM ON RANDOM BASIS ON THESE VISITS. LONGO EXPRESSED VIEW THAT EURATOM WOULD ACCEPT THAT APPROACH AS LONG AS RANDOM VISITS WOULD NOT BE TOO HIGH PERCENT OF TOTAL MADE BY EURATOM (I.E., AT THE THREE AND NINE-MONTH TIMES).

4. MISSION HAD SEEN NOVEMBER 7 FISCHER DRAFT LETTER TO WILLIAMS WHICH INCLUDED PROPOSAL THAT "PENDING DEVELOPMENT OF AN ADEQUATELY TAMPER-RESISTANT SLAVE COMPONENT OF THE SURVILLANCE EQUIPMENT, THE AGENCY WILL HAVE THE RIGHT TO ACCOMPANY THE EURATOM INSPECTOR WHEN HE REMOVES THE SLAVE COMPONENT FROM THE SURVILLANCE EQUIPMENT". SUBSEQUENTLY, SOVIETS HAVE PUT STRONG PRESSURE ON AGENCY TO BE LESS FLEXIBLE REGARDING ACCEPTANCE OF VALIDITY OF CASSETTES BROUGHT OUT BY EURATOM INSPECOTRS ALONE. (SEE REF D AND SEPTTEL REPORTING CONFIDENTIAL

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US/USSR MISSION' DISCUSSION ON NOVEMBER 10.) AS CONSEQUENCE, AGENCY LETTER NOW, IN PARA D. PROPOSES THAT "AGENCY WILL EXERCISE ITS RIGHT" TO ACCOMPANY EURATOM INSPECTORS ON THE THREE AND NINE-

MONTH CASSETTE REMOVAL VISITS UNTIL TAMPER RESISTANCE IS CONSIDERED ADEQUATE. FISCHER ADVISES THATHE EXPLAINED TO EC MEMBER STATE REPS WHEN GIVING THEM COPY OF LETTER, THAT SOVIETS HAVE ASSURED HIM THEY WOULD NOT OBJECT TO THIS ARRANGEMENT AT FORTHCOMING FEB. BOARD MEETING IF IT WERE WORDED THIS WAY. HOWEVER, IF EURATOM INSISTED ON ANYTHING LESS STRINGENT SOVIETS HAVE INDICATED THEY WOULD MAKE STRONG OBJECTION TO THE ARRANGEMENT AT FEBRUARY BG.

5. THIS FINAL WORDING DOES NOT SPECIFY WHAT FRACTION OF THE TIME THE AGENCY ACTUALLY INTENDS TO EXERCISE ITS RIGHT. HOWEVER, SINCE THE LETTER DOES NOT EVEN REFER TO THE RANDOM VISIT CONCEPT, LONGO FEELS IT WILL BE INTERPRETED VERY STRICTLY IN LUXEMBOURG AND POSSIBLY REJECTED.

6. THE FISCHER LETTER DOES RECOGNIZE THE LONGER TERM

GOAL OF REDUCING DETECTION TIME TO TWO MONTHS. IN  
THIS REGARD, THORSTENSEN EXPRESSED SURPRISE  
THAT U.S. IS PUSHING FOR A DETECTION TIME EQUAL TO THE  
TWO MONTHS' CRITICAL TIME FOR PLUTONIUM IN SPENT FUEL,

SINCE THAT GIVES NO RECOGNITION TO THE NON-PROLIFERATION

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DODE-00 SS-15 SP-02 /091 W  
-----056321 190924Z /12

P 181740Z NOV 77

FM AMEMBASSY VIENNA  
TO SECSTATE WASHDC PRIORITY 4146  
INFO USDEO HQ WASHDC PRIORITY  
USDEO GERMANTOWN PRIORITY  
AMEMBASSY BRUSSELS PRIORITY

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VALUE OF A COUNTRY AGREEING TO NPT OR FULL FUEL CYCLE  
SAFEGUARDS (HIS IDEA BEING THAT A TWO MONTHS' DETECTION  
TIME IN A COUNTRY WHICH AS AGREED TO PLACE ALL  
REPROCESSING PLANTS UNDER SAFEGUARDS IS NOT SO  
IMPORTANT AS IN A COUNTRY WHICH HAS UNSAFEGUARDED  
REPROCESSING PLANTS).

7. FOLLOWING IS TEXT OF FISCHER TO WILLIAMS LETTER  
OF NOVEMBER 15, 1977:

QUOTE

IN THE LIGHT OF THE DISCUSSIONS WHICH TOOK PLACE IN THE  
BOARD OF GOVERNORS OF THE AGENCY IN SEPTEMBER AND SUBSEQUENT  
DEVELOPMENTS AND TAKING INTO ACCOUNT WHAT WE UNDERSTAND TO BE  
THE DECISION OF THE COUNCIL OF MINISTERS OF THE COMMUNITY ON

THE BASIS OF EARLIER NEGOTIATIONS, THE DIRECTOR GENERAL HAS  
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ASKED ME TO PUT FORWARD THE FOLLOWING PROPOSAL CONCERNING THE  
SAFEGUARDS APPROACH TO LIGHT WATER REACTORS AND THE AGENCY'S  
ROUTINE INSPECTION EFFORT IN THIS CONNECTION.

THIS PROPOSAL ALSO TAKES INTO ACCOUNT THE HIGH STRATEGIC  
VALUE OF PLUTONIUM PRODUCED IN IRRADIATED FUEL AND THE SIGNIFICANT  
AMOUNTS OF PLUTONIUM IN IRRADIATED FUEL THAT ARE BEING STORED AT  
LIGHT WATER REACTOR SITES.

THE MAIN ELEMENTS OF THE PROPOSAL ARE AS FOLLOWS:

A. THERE WILL BE A COMPLETE INSPECTION ABOUT THE TIME  
OF EACH REFUELLING CONSISTING OF A NUMBER OF VISITS  
OF WHICH THE MAIN TASKS WILL BE TO IDENTIFY, VERIFY,  
CARRY OUT NECESSARY MEASUREMENT AND ACCOUNT FOR ALL  
FRESH AND SPENT FUEL, REMOVE AND AFFIX SEALS, REVIEW  
TAPES AND CHECK, SERVICE AND RELOAD THE SURVEILLANCE  
EQUIPMENT REFERRED TO IN PARAGRAPH F AS WELL AS ANY  
OTHER ACTIVITIES THAT MAY BE NECESSARY.

B. ABOUT SIX MONTHS AFTER THE COMPLETE INSPECTION, THERE  
WILL BE A MORE LIMITED INSPECTION (AT "MID-TOUR")  
CHIEFLY TO CHECK THE OPERATION OF AND SERVICE THE  
SURVEILLANCE EQUIPMENT. THE VIDEO-RECORDINGS OF THE  
PREVIOUS THREE MONTHS WILL BE REVIEWED JOINTLY BY THE  
AGENCY AND EURATOM EITHER AT THE REACTOR OR AFTER  
REMOVAL TO LUXEMBOURG.

C. ABOUT THREE MONTHS AFTER THE COMPLETE AND THE "MID-TERM"  
INSPECTIONS THE "SLAVE" COMPONENT/CASSETTE OF THE  
SURVEILLANCE EQUIPMENT WILL BE REMOVED TO LUXEMBOURG FOR  
JOINT REVIEW BY THE AGENCY AND EURATOM OF THE VIDEO-  
RECORDINGS OF THE PREVIOUS THREE MONTHS. THE MASTER-UNIT,  
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SLAVE COMPONENT/CASSETTE WILL BEAR IAEA'S SEALS.

D. THE COMPLETE AND THE MID-TERM INSPECTIONS WILL BE CARRIED  
OUT JOINTLY BY BOTH ORGANIZATIONS AT WHICH EACH WILL DRAW  
ITS INDEPENDENT CONCLUSIONS. WHEN AN ADEQUATELY TAMPER-  
RESISTENT SLAVE COMPONENT/CASSETTE OF THE SURVEILLANCE  
EQUIPMENT HAS BEEN DEVELOPED, INSTALLED AND TESTED THE  
THREE-MONTH VISITS REFERRED TO IN PARAGRAPH C WILL BE  
CARRIED OUT BY EURATOM, WHO WILL REMOVE THE SLAVE COMPONENT

TOLUXEMBOURG. UNTIL THEN THE AGENCY WILL EXERCISE ITS RIGHT TO BE PRESENT DURING THE INSPECTIONS REFERRED TO IN PARAGRAPH C WHEN THE SLAVE COMPONENT/CASSETTE IS REMOVED FROM THE SURVILLANCE EQUIPMENT. IF DURING THESE INSPECTIONS IT ALSO PROVES NECESSARY TO REVIEW, CHECK OR SERVICE THE SURVILLANCE EQUIPMENT, THIS WILL ALSO BE DONE JOINTLY BY BOTH ORGANIZATIONS.

E. EVERY EFFORT WILL BE MADE BY THE IAEA TO DEVELOP AN ADEQUATELY TAMPER-RESISTANT SLAVE COMPONENT/CASSETTE OF THE SURVILLANCE EQUIPMENT AS SOON AS POSSIBLE (THIS PROGRAMME IS ALREADY UNDER WAY).

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INR-07 IO-13 L-03 NSAE-00 NSC-05 EB-08 NRC-05  
DODE-00 SS-15 SP-02 /091 W  
-----056156 190926Z /12

P 181740Z NOV 77  
FM AMEMBASSY VIENNA  
TO SECSTATE WASHDC PRIORITY 4147  
INFO USDOE HQ WASHDC PRIORITY  
USDOE HQ GERMANTOWN PRIORITY  
AMEMBASSY BRUSSELS PRIORITY

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F. THE SURVILLANCE EQUIPMENT WILL CONSIST ESSENTIALLY OF TWO VIDEOGRAPH RECORDERS LINKED TO THE SAME SIGNAL FROM THE SAME CAMERA OR CAMERAS, THE MASTER VIDEOGRAPH BEING DESIGNED TO OPERATE FOR AT LEAST TWELVE MONTHS (EXPERIENCE SO FAR PROVIDES ASSURANCE OF RELIABILITY OF NOT MORE THAN SIX MONTHS) AND THE SLAVE COMPONENT/CASSETTE DESIGNED TO OPERATE FOR AT LEAST THREE MONTHS AND TO RECORD EXACTLY THE SAME EVENTS AS THE MASTER VIDEOGRAPH. THE SURVILLANCE EQUIPMENT WILL OVERSEE THE SPENT FUEL POND AND THE REACTOR COVER.

G. IN THE EVENT OF A FAILURE OF SURVILLANCE OR CONTAINMENT MEASURES OR OTHER UNFORSEEN EVENTS AN INSPECTION MAY, OF COURSE, BE NEEDED TO RE-ESTABLISH THE INVENTORY. THE ABOVE ARRANGEMENTS ARE ALSO NOT INTENDED TO COVER EVERY ASPECT OF REACTOR OPERATION AND GREATER DETAIL WILL HAVE TO BE INCLUDED IN THE FACILITY ATTACHMENT( E.&G. TO COVER THE EVENTUALITY OF SHIPMENT OF PARTIALLY CONFIDENTIAL

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FILLED CASKS OF SPENT FUEL).

THE FOREGOING ARRANGEMENT WILL BE INTENDED TO ENABLE THE AGENCY TO ACHIEVE A DETECTION TIME OF THREE MONTHS OF THE REMOVAL OF A SPENT FUEL ASSEMBLY OR OF THE OPENING OF THE REACTOR, TAKING INTO ACCOUNT THE INSPECTION EFFORT CARRIED OUT BY EURATOM PURSUANT TO ARTICLE II OF THE PROTOCOL.

IN THE LIGHT OF THE DEVELOPMENTS REFERRED TO CONCERNING THE USE OF IRRADIATED LIGHT-WATER REACTOR FUEL AND THE TIME WHICH MAY ELAPSE AFTER DETECTION OF A SUSPECTED DIVERSION AND BEFORE EFFECTIVE ACTION CAN BE TAKEN, THE OBJECTIVE IS TO REDUCE WORLD-WIDE THE AGENCY'S DETECTION TIME FOR THE REMOVAL OF A SPENT FUEL ASSEMBLY TO TWO MONTHS. THE ARRANGEMENTS PROPOSED ABOVE SHOULD NOT PREJUDICE THE EVENTUAL ATTAINMENT OF THIS OBJECTIVE.

IT SHOULD BE PLACED ON RECORD THAT THE "MASTER/SLAVE" SURVILLNAC EQUIPMENT REFERRED TO IN PARAGRAPH F IS STILL UNDER DEVELOPMENT AND HAS NOT YET BEEN INSTALLED IN ANY NUCLEAR POWER PLANT. SEVRAL SETS OF SUCH EQUIPMENT ARE ON ORDER AND IT IS EXPECTED THAT, PROVIDED THAT THE CONCURRENC OF PLANT OPERATORS IS OBTAINED BY THE COMMUNITY, IT WILL BE POSSIBLE TO INSTALL SUCH SETS IN THE LIGT-WATER REACTORS OF THE COMMUNITY IN THE COURSE OF 1978. PENDING THE INSTALLATION AND EFFECTIVE OPERATION IN THESE REACTORS OF THE SURVEILANCE EQUIPMENT REFERRED TO IN PARAGRAPH F, THE AGENCY WILL CONTINUE TO EXERCISE ITS RIGHTS OF INSPECTION PURSUANT TO ARTICLE 71(A) OF THE AGREEMENT, AND MAY ALSO INSTALL CONTAINMENT OR SURVILLANCE DEVICES ALREADY AVAILABLE. IF FOR THE PURPOSE OF INSTALLING SUCH DEVICES OR BECAUSE EXTENSIVE DELAYS ARE FORESEEN BEFORE THE INSTALLATION OF THE SURVILLANCE EQUIPMENT REFERRED TO IN PARAGRAPH F, IT PROVES NECESSARY TO PREPARE PROVISIONAL FACILITY ATTACHMENTS, THIS WILL BE DONE PROMPTLY CONFIDENTIAL

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BY BOTH ORGANIZATIONS.

THE ARRANGEMENTS OUTLINED SHOULD BE REVIEWED AFTER A PERIOD

OF NOT MORE THAN TWO TO THREE YEARS TO TAKE INTO ACCOUNT EXPERIENCE  
IN THEIR IMPLEMENTATION AS WELL AS RELEVANT TECHNOLOGICAL AND  
SAFEGUARDS DEVELOPMENTS. UNQUOTE STONE

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## Message Attributes

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**Copy:** SINGLE  
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**Decaption Note:**  
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**Disposition Approved on Date:**  
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**Original Handling Restrictions:** n/a  
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**Previous Handling Restrictions:** n/a  
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**Review Exemptions:** n/a  
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**Review Release Event:** n/a  
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**Review Markings:**  
Margaret P. Grafeld  
Declassified/Released  
US Department of State  
EO Systematic Review  
22 May 2009  
**Markings:** Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009